

## الدور التنموي لخدمات الوساطة المالية في النظام المصرفي في المملكة العربية السعودية

خلال الفترة ۱۹۸۰ - ۲۰۰۵م

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Multivariate Causality Tests



## الدور التنموي لخدمات الوساطة المالية في النظام المصرفي في المملكة العربية السعودية خلال الفترة ١٩٨٠ – ٢٠٠٥م

(Atindéhou and

(Bencivenga 1991)

others, 2005)

.(Levine 2000)



## Multivariate Causality Tests



Monetary Base



(Tobin, 1965)

(Marini & Ploeg, 1998)

(Sidrausky, 1967)

. superneutrality

(Fisher, 1997)

(Ireland, 1994)

.(Mishkin, 1995)

.(Ennis and Keister, 2004)



Moral Hazard

.(Bernanke, 1995)

(Bagehot, 1962)

(Jappelli & Pagano, 1994)



.(Berthelemy 1996)

.(Bencivenga and Smith, 1991)



.(Green & Lin, 2000)

.(Grossman and Helpman, 1991)

(Barro & Martin, 1992)

.(Cetorelli, 2003)



.(Williamson, 1987)

## moral hazard problem

.(Gaytan & Ranciere, 2004)

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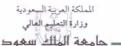
F

 $Y_{t} = f(A_{t}, K_{t}, L_{t}, (F/Y)_{t})$  f' > 0 f'' < 0(3.0)

3.0 .L K A

F

.GDP





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c

$$u(c) = (c^{1-\sigma} - 1)/(1-\sigma), \quad \sigma > 0$$
 (3.1)

 $\sigma$  -  $\sigma$ 

reciprocal of the intertemporal elasticity of substitution

$$f(A_{t}, K_{t}, L_{t}, (F/Y)_{t}) = A_{t}, K_{t}^{\beta}, L_{t}^{1-\beta}, (F/Y)_{t}^{\gamma})$$

$$L K (F/Y)$$

$$(F/Y)$$

: . .

 $\rho \in (o, \infty)$ 

$$U = \int_0^\infty u(c_t) \, e^{-\rho t \, dt} \tag{3.3}$$



$$A_{t}K_{t}^{\beta}L_{t}^{1-\beta}(F/Y)_{,t}^{\gamma} = L_{t}c_{t} + \dot{K})$$
(3.4)

F

$$H = \frac{L_t}{1 - \sigma} c_t^{1 - \sigma} + \theta (A_t K^{\beta} L^{1 - \beta} (F/Y)_t^{\gamma} - L_t c_t)$$
 (3.5)

 $g_c$ 

$$\left[g_c = \frac{\dot{c}}{c} = \frac{1}{\sigma} (\gamma A_t K^{\beta} L^{1-\beta} (F/Y)^{\gamma-1} - \rho\right]$$
(3.6)

$$F_{\gamma} = \gamma A_{t} K^{\beta} L^{1-\beta} (F/Y)^{\gamma-1} \qquad F_{r}$$

$$g_c = \frac{1}{\sigma} [F_r - \rho] \tag{3.7}$$

 $\rho$ 

y k

3.6 .steady State

 $\mathbf{c}$ 





 $\sigma \jmath \rho$ 

3.7

F

 $\rho$ 

3.2

$$\frac{\dot{Y}}{Y} = \frac{\dot{A}}{A} + \frac{AK}{Y}\dot{K} + \frac{AL}{Y}\dot{L} + \frac{AF}{Y}\dot{F}$$
(4.1)



4.1

F L K 4.1

$$\frac{\dot{Y}}{Y} = \frac{\dot{A}}{A} + \frac{AK_k K}{Y} \frac{\dot{K}}{K} + \frac{AL_l L}{Y} \frac{\dot{L}}{L} + \frac{AF_f}{Y} \frac{\dot{F}}{F}$$
(4.2)

AFF  $\begin{array}{c} AL_L \\ \frac{AK_kK}{Y}, \frac{AL_lL}{Y}, \text{ and } \frac{AF_FF}{Y} \end{array}$ 

4.1 
$$\beta_{3} \beta_{2} \beta_{1}$$
  $\frac{\dot{Y}}{Y} = \frac{\dot{A}}{A} + \beta_{1} \frac{\dot{K}}{K} + \beta_{2} \frac{\dot{L}}{L} + \beta_{3} \frac{\dot{F}}{F}$  (4.3)

A (Mankiw 1995)

$$Ln\frac{A_{t+1}}{A_t} = \alpha + \varepsilon \tag{4.4}$$

 $(4.3) \epsilon \alpha$ 

$$Ln\frac{Y_{t+1}}{Y_{t}} = \alpha + \beta_{1}Ln\frac{K_{t+1}}{K_{t}} + \beta_{2}Ln\frac{L_{t+1}}{L_{t}} + \beta_{3}Ln\frac{F_{t+1}}{F_{t}} + \varepsilon \qquad (5.5)$$

 $\beta_3$   $\beta_2$   $\beta_1$   $\alpha$ 

OLS



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 $K_{t+1} = K_t(1-\delta) + I_t$ 

% . t  $K_t$ 

 $I_t \qquad . \\ K_0$ 

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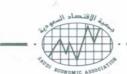
(Mankiw 1995,

Feenstra 1994, and Islam 1992)

Maddala

.(1992)





 $F_{t}$ 



.(White's 1980)

Cochran-Orcutt method

.maximum likelihood

$$F_{t} = \alpha_{0} F_{t-1} + \alpha_{1} Y_{t-1} + \varepsilon \tag{4.6}$$

$$Y_{t} = \beta_{0} Y_{t-1} + \beta_{1} F_{t-1} + \varepsilon \tag{4.7}$$

 $\beta_1$   $\alpha_1$ 



 $\alpha_1$ 

 $\beta_1$ 

$$F_{t} = \alpha_{t} + \alpha_{1}F_{t-1} + \dots + \alpha_{5}F_{t-5} + \beta_{1}Y_{t-1} + \dots + \beta_{5}Y_{t-5}$$
(4.8)

$$Y_{t} = \alpha_{t} + \alpha_{1}Y_{t-1} + \dots + \alpha_{5}Y_{t-5} + \beta_{1}F_{t-1} + \dots + \beta_{5}F_{t-5}$$
(4.9)

$$.\beta_1=\beta_2=...=\beta_5=0$$
 Wald 
$$\beta \quad \alpha$$
 ( , ) 
$$.(\ ,\ )$$





( . )

( )

\_ \_

%





( , )

(3.7)





(3.7)

 $\rho$ 

% %

% %

( . )

المملكة العربية السعودية وزارة التعليم العالي — جاهيمة المالك تسجود



الملكة العربة السعودية وزارة التعليم العالي — جامحة المالك سعود





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$R^2$	P-Value	β's							
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$R^2$	P-Value	β's							
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$R^2$	P-Value	β's							
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ı	1	ı							



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$\mathbb{R}^2$	P-Value	β's	
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$\mathbb{R}^2$	P-Value	<b>β</b> 's	
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$\mathbb{R}^2$	P-Value	<b>ß</b> 's	
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$\mathbb{R}^2$	P-Value	$\beta$ 's						
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$\mathbb{R}^2$	P-Value	<b>β</b> 's						
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1	1	ı						
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0.016657	S	0.007658	S	0.04696	S	0.006876	S	
	N		N		N		N	
0.024169	S	0.046169	S	0.003456	S	0.214864	N	
0.020169	S	0.036169	S	0.009064	S	0.384864	N	



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	1	I	· · ·
77.15	32462	42,079	1980
81.23	46510	57,260	1981
83.27	60397	72,534	1982
77.41	62554	80,812	1983
75.62	64456	85,242	1984
72.54	61624	84,950	1985
89.13	76525	85,853	1986
78.92	69715	88,335	1987
95.97	86014	89,624	1988
85.79	84241	98,198	1989
90.99	93295	102,537	1990
94.05	91016	96,769	1991
60.54	72930	120,473	1992
58.03	74294	128,025	1993
46.54	58997	126,772	1994
44.13	58293	132,097	1995
47.35	67518	142,606	1996
33.22	53471	160,971	1997
24.83	42839	172,527	1998
22.57	40334	178,689	1999
19.66	36761	186,946	2000
19.36	39750	205,313	2001
23.66	52491	221,877	2002
15.90	41019	258,038	2003
16.75	47051	280,960	2004
7.59	26390	347,843	2005

http://www.sama.gov.sa/newreports/annual/ar/index.htm



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99.36	41808	42,079	1980
90.53	51835	57,260	1981
80.76	58580	72,534	1982
88.08	71182	80,812	1983
72.18	61524	85,242	1984
67.96	57731	84,950	1985
51.76	44436	85,853	1986
48.17	42553	88,335	1987
54.05	48441	89,624	1988
51.20	50272	98,198	1989
51.15	52446	102,537	1990
56.79	54957	96,769	1991
59.50	71681	120,473	1992
57.47	73574	128,025	1993
56.50	71629	126,772	1994
42.74	56457	132,097	1995
41.48	59147	142,606	1996
40.25	64783	160,971	1997
40.97	70685	172,527	1998
39.15	69955	178,689	1999
35.13	65680	186,946	2000
34.75	71351	205,313	2001
36.52	81026	221,877	2002
30.91	79755	258,038	2003
30.67	86175	280,960	2004
27.60	96019	347,843	2005

http://www.sama.gov.sa/newreports/annual/ar/index.htm



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					1000
176.50	42,079	74270	32462	41808	1980
171.75	57,260	98345	46510	51835	1981
164.03	72,534	118976	60397	58580	1982
165.49	80,812	133736	62554	71182	1983
147.79	85,242	125980	64456	61524	1984
140.50	84,950	119355	61624	57731	1985
140.89	85,853	120961	76525	44436	1986
127.09	88,335	112268	69715	42553	1987
150.02	89,624	134455	86014	48441	1988
136.98	98,198	134514	84241	50272	1989
142.14	102,537	145741	93295	52446	1990
150.85	96,769	145973	91016	54957	1991
120.04	120,473	144611	72930	71681	1992
115.50	128,025	147869	74294	73574	1993
103.04	126,772	130626	58997	71629	1994
86.87	132,097	114750	58293	56457	1995
88.82	142,606	126665	67518	59147	1996
73.46	160,971	118254	53471	64783	1997
65.80	172,527	113524	42839	70685	1998
61.72	178,689	110289	40334	69955	1999
54.80	186,946	102441	36761	65680	2000
54.11	205,313	111101	39750	71351	2001
60.18	221,877	133517	52491	81026	2002
46.80	258,038	120774	41019	79755	2003
47.42	280,960	133226	47051	86175	2004
35.19	347,843	122409	26390	96019	2005

http://www.sama.gov.sa/newreports/annual/ar/index.htm



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2.45	1.86	1980
2.54	1.89	1981
2.52	1.89	1982
2.67	1.92	1983
2.62	1.82	1984
2.45	1.66	1985
2.29	1.55	1986
2.20	1.53	1987
3.09	2.16	1988
3.26	2.19	1989
2.70	1.95	1990
3.03	2.21	1991
3.19	2.33	1992
3.13	2.24	1993
3.13	2.22	1994
3.42	2.29	1995
3.76	2.45	1996
3.74	2.42	1997
3.88	2.44	1998
3.38	2.19	1999
3.67	2.37	2000
3.97	2.63	2001
3.83	2.50	2002
4.10	2.72	2003
4.34	2.86	2004
4.63	2.93	2005

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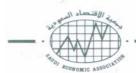
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